

Mail To: California Department of Water Resources
Office of Water Use Efficiency
P.O. Box 942836
Sacramento, CA 94236-0001
Attn: Marsha Prillwitz

OR

**Overnight Carrier
or Hand**

Deliver To: California Department of Water Resources
Office of Water Use Efficiency
1416 Ninth Street, Room 338
Sacramento, CA 95814
Attn: Marsha Prillwitz

Due: **3:00 p.m., March 1, 2002**

Proposal: ☒ Proposition 13 Urban Water Conservation Capital Outlay Grant

**Proposal
Submittal
Package:**

☒ One original, eight (8) photocopies, and one electronic copy on CD-ROM in MS Word.

From: ☒ City of Gardena, CA, a governmental corporation

and its Contractor,

☒ Southern California Water Company,
a subsidiary of American States Water Company
Region II
1920 W. Corporate Way
Anaheim, CA 92801

Applicant's Project No. 2002 A – GWO 25001792

Installation of 1,400 feet \pm of new replacement 8" diameter cement mortar lined-ductile iron pipe to replace old unlined cast iron water pipe in 135th Street from Vermont Avenue to Budlong Avenue, City of Gardena.

Consolidated Water Use Efficiency 2002 PSP

Proposal Part One:

A. Project Information Form

1. Applying for: ☒ (a) Prop 13 Urban Water Conservation Capital Outlay Grant
2. Principal applicant (Organization or affiliation): Local Jurisdiction City of Gardena
-
3. Project Title: Applicant's Project No. 2002 A – GWO 25001792
Installation of 1,400 feet \pm of new replacement 8" diameter cement mortar lined-ductile iron pipe to replace old unlined cast iron water pipe in 135th Street from Vermont Avenue to Budlong Avenue, City of Gardena.
-
4. Person authorized to sign and submit proposal: on behalf of local jurisdiction:
- | | |
|-----------------|---|
| Name, title | Mitchell Lansdell
City Manager |
| Mailing address | 1700 W. 162 nd Street
Gardena, CA 90250 |
| Telephone | 310-217-9500 |
| Fax. | 310-217-9694 |
| E-mail | mlansdell@ci.gardena.ca.us |
-
5. Contact person (if different):
(Contractor for Local Jurisdiction)
- | | |
|------------------|--|
| Name, title. | Denise Kruger
Vice President, Customer |
| Mailing address. | Service, Region II
1920 W. Corporate Way
Anaheim, CA 92801 |
| Telephone | (714) 535-7711 ext. 200 |
| Fax. | (714) 535-8616 |
| E-mail | dlkruger@scwater.com |
-
6. Funds requested (dollar amount): **\$ 301,480**
-
7. Applicant funds pledged (dollar amount): **\$ - 0 -**
-
8. Total project costs (dollar amount): **\$ 301,480**
-

**Consolidated Water Use Efficiency 2002 PSP
Proposal Part One:
A. Project Information Form (continued)**

- | | |
|--|--|
| 9. Estimated total quantifiable project benefits (dollar amount): | \$ 350,000 |
| Percentage of benefit to be accrued by applicant: | 50%* |
| Percentage of benefit to be accrued by CALFED or others: | 50%* |
| <hr/> | |
| 10. Estimated annual amount of water to be saved (acre-feet): | 9.24 Ac. Ft. |
| Estimated total amount of water to be saved (acre-feet): | 462 Ac. Ft. |
| Over ____ years | 50 years |
| Estimated benefits to be realized in terms of water quality, in stream flow, other: | 100 %+: Reduction of Water Wastage and Water Quality and Environment Improvements |
| <hr/> | |
| 11. Duration of project (month/year to month/year): | 4/02 – 8/03 |
| <hr/> | |
| 12. State Assembly District where the project is to be conducted: | 52 |
| <hr/> | |
| 13. State Senate District where the project is to be conducted: | 25 |
| <hr/> | |
| 14. Congressional district(s) where the project is to be conducted: | 35 |
| <hr/> | |
| 15. County where the project is to be conducted: | County of Los Angeles |
| <hr/> | |
| 16. Date most recent Urban Water Management Plan submitted to the Department of Water Resources: | 12/29/2000 |
| <hr/> | |

* Based on average blend of water used in system for flushing of unlined cast iron mains. Blend averages 50% groundwater, 50% imported water from Metropolitan Water District of Southern California.

Consolidated Water Use Efficiency 2002 PSP

Proposal Part One:

A. Project Information Form (continued)

17. Type of applicant (select one):
Prop 13 Urban Grants and Prop 13
Agricultural Feasibility Study Grants:

- ☒ (a) city *with Contractor, Southern California Water Company*
☐ (b) county *with Contractor, Southern California Water Company*
☐ (c) city and county
☐ (d) joint power authority

☐ (e) other political subdivision of the State, including public water district
☐ (f) incorporated mutual water company

DWR WUE Projects: the above
entities (a) through (f) or:

- ☐ (g) investor-owned utility
☐ (h) non-profit organization
☐ (i) tribe
☐ (j) university
☐ (k) state agency
☐ (l) federal agency
☐ (a) agricultural
☒ (b) urban

18. Project focus:

19. Project type (select one):
Prop 13 Urban Grant or Prop 13
Agricultural Feasibility Study Grant
capital outlay project related to:

- ☐ (a) implementation of Urban Best Management Practices

☐ (b) implementation of Agricultural Efficient Water Management Practices

☒ (c) implementation of Quantifiable Objectives (include QO number(s))

See Note 1 on page 6

- ☐ (d) other (specify)
-

**Consolidated Water Use Efficiency 2002 PSP
Proposal Part One:
Project Information Form (continued)**

DWR WUE Project related to:

- ☐ (e) implementation of Urban Best Management Practices
 - ☐ (f) implementation of Agricultural Efficient Water Management Practices
 - ☐ (g) implementation of Quantifiable Objectives (include QO number(s))
 - ☐ (h) innovative projects (initial investigation of new technologies, methodologies, approaches, or institutional frameworks)
 - ☐ (i) research or pilot projects
 - ☐ (j) education or public information programs
 - ☐ (k) other (specify)
-

Do the actions in this proposal involve physical changes in land use, or potential future changes in land use?

- ☐ (a) yes
- ☒ (b) no

If yes, the applicant must complete the CALFED PSP Land Use Checklist found at http://calfed.water.ca.gov/environmental_docs.html and submit it with the proposal.

Note 1:

The water system of the Southern California Water Company (SCWC), which serves this community, has considerable footage of unlined cast iron water pipe installed prior to 1955. The various qualities of the water supply, presently a blend of local ground water and imported water received from the Metropolitan Water District of Southern California, have reacted with the unlined metallic surface to form an interior environmental condition that imparts what appears to the customer to be colored water sometimes with an odor in the water supply at the point of delivery to the residences and businesses.

Also the chemistry of the interior environment causes a breakdown of the cast iron into an array of tuberculations that reduce the flow capacity of the pipeline with a resultant reduction in system pressure including flows needed for fire protection. This results in customer dissatisfaction with the delivered water supply that as a liquid meets all Federal and State Drinking Water Standards. There also is the related metallic matter entering into the household plumbing, which contributes to screen clogging in faucets and showerheads, in addition to staining and rusting of the piping and fixtures including the water heater.

SCWC, to mitigate this environmental condition, uses a combination of injected chemical treatment and flushing of the water systems on a routine schedule. The chemical usages cost adds to the expense of delivery of water to the community. The flushing program in addition to being an expense wastes water, causes movement within the pipeline system of any fine particles of sand and other matter found in the groundwater into the customer's premises plumbing, when heated on the premises the color and odor conditions are heightened, and the water rust color causes plumbing and fixture staining and deterioration.

It is believed by SCWC that the installation of a new replacement pipeline installation made with cement mortar lined ductile iron pipe that does not rust or tuberculate in the interior which has a minimum fifty (50) year service life will produce resultant cost and water supply quantity savings (converted into dollars) resulting from a reduction in flushing by SCWC when coupled with the cost savings to the customers by the resultant improvement in water quality will give at the minimum a 100% local benefit for this project.

**Consolidated Water Use Efficiency 2002 PSP
Proposal Part One
B. Signature Page**

By signing below, the official declares the following:

The truthfulness of all representations in the proposal;

The individual signing the form is authorized to submit the proposal on behalf of the applicant; and

The individual signing the form read and understood the conflict of interest and confidentiality section and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant.

Signature

Mitchell Lansdell
City Manager

Date

Signature

Denise Kruger
Vice President, Customer Service
Region II

2/28/02

Date

Proposal Part Two:

Project Summary

A. Nature, scope and objective of the project.

This project, to install a new replacement cement mortar lined ductile iron pipe to replace an existing unlined cast iron water pipe installed prior to 1955, is intended to reduce unrecoverable water losses resulting from leaks and routine flushing of the pipe system, improve water quality by the taking out of service of rusted tuberculated cast iron pipe and attain environmental benefits all through water use efficiency measures with the benefits accruing to the customers served from the existing pipeline system in the community by providing them a rust and iron free and odorless water supply at improved flow and pressure.

The replacement water main project description, footage and cost is given on Exhibit "A" enclosed herewith.

B. Scope of work: Technical/Scientific Merit, Feasibility, Monitoring and Assessment

1. Methods, procedures and facilities.

The methods to be used to install the replacement ductile iron pipeline are the standard procedures used throughout California, generally involving open excavation of the public street, installation of the replacement pipeline, and appurtenances, interconnections to the existing water system and the abandonment in place of the replaced cast iron pipeline. The excavation is backfilled and street pavement and other improvements replaced in kind all to the standards rules, regulations and permits of the local jurisdiction and the California Public Utilities Commission (CPUC) and the State of California Department of Health Services (DOHS). All construction work would be done by a State of California licensed Contractor retained under a competitive bidding process and contract. Overall plans and specifications, preparation, supervision, inspection and project management would be done by the Southern California Water Company, the local water purveyor which is an investor owned utility operating under a franchise granted by the local jurisdiction and permits and certificates issued by DOHS and CPUC.

2. Task list and Schedule.

		Calendar Days & Date	
a.	Receipt of Funding Authorization from DWR	Start Date – Day 1	4/15/02
b.	Five day appeal process ends	Day 6	4/24/02
c.	Contract negotiations begin	Day 13	5/1/02
d.	Contract executed, project begins	Day 166 (1)	10/1/02
e.	Preparation of plans and specifications	Days 167 – 252 (84)	10/2/02-1/8/03
f.	Bidding of project	Days 253 – 286 (33)	1/9/03 – 2/10/03
g.	Award of project and execution of contract to low bid qualified Contractor	Days 287 – 312 (25)	2/11/03 – 3/7/03
h.	Issue Notice to Proceed to Contractor	Days 313 – 322 (10)	3/8/03 – 3/17/03
i.	Pre-Construction Meeting	Day 323 (1)	3/18/03
j.	Contractor Mobilization	Days 324 – 338 (14)	3/19/03 – 4/2/03
k.	Construction (60 working days)	Days 339 – 423 (84)	4/3/03 – 7/10/03
l.	Beginning of improved water quality service	Day 423 (1)	7/11/03
m.	Processing of final invoice and acceptance of Contractor's work	Days 423 – 453 (31)	7/11/03 – 8/11/03
n.	Close out of agreement with DWR	Days 454 – 501 (7)	8/12/03 – 8/19/03

C. Qualifications of the Applicant's and Cooperators.

This jurisdiction has been incorporated for many years as a governmental corporation governed by elected officials and managed by professional staff. The local jurisdiction does not presently own or operate a water distribution system to serve the area within the Southern California Water Company's certificated Service Area. The Southern California Water Company (SCWC) is an investor owned water distribution company and is a subsidiary of the American States Water Company, a stock corporation listed on the New York Stock Exchange. SCWC has been operating water distribution systems throughout the State of California since 1929, and is one of the largest water distribution systems locally and nationally. SCWC is managed by professional staff. SCWC has provided water service to this community for many years as a public utility regulated by the State of California Public Utilities Commission operating pursuant to rules and regulations of the State of California Department of Health Services. Potable water service is provided by SCWC.

D. Benefits and Costs

The cost of this project is contained on Exhibit "A" enclosed herewith.

The benefits of this project are accomplished by the replacement of an existing unlined cast iron water main and appurtenances that are over 46 years of age with a cement mortar lined ductile iron water main and appurtenances.

The water main replacement will:

- permit a reduction in flushing of the water system thereby reducing the quantity of water wasted to the local storm drain system and to better comply with latest NPDES regulations.
- permit a reduction in chemicals injected into the water supply to sanitize the water main interior and to mitigate the deterioration of the unlined cast iron pipe.
- eliminate the further turberculation of the unlined cast iron pipe.
- eliminate deteriorated iron emanating from the cast iron main from traveling through the local water distribution system into the customer's piping system.
- eliminate the occurrence of failure of the cast iron main as the chemical action and turberculation of the pipe occurs within the pipe section.
- eliminate the coloring and odor buildup in the water supply from contact with the unlined cast iron pipe.
- eliminate the generation of colored and odor containing waters from entering the customer's water supply and premises piping system.
- eliminate the staining of the customer's piping and plumbing fixtures.
- eliminate the need for the customer to regularly flush their plumbing system to obtain a clear-odor free water supply thereby reducing the wastage of water and reducing the customer's water bill.
- extend the useful life of the customer's hot water heater.
- provide an aesthetically environmentally pleasing water supply for the served customers.
- increase customers confidence in the safeness of the water supply delivered by the water purveyor.

- eliminate the impact on the water service to customers during the routine flushing process.
 - eliminate the flushing programs impact on the water quality in the system during and after the flushing.
 - allow the customer to make more efficient use of the water supply.
 - reduce the wastage of water to the local sewer system as customers do not have to flush their premises water systems.
 - reduce the quantity of water wasted to the local storm drain system and the quantity of street gutter debris washed into the storm drain system as the flushing program is underway.
 - reduce the head/friction loss by installation of new lined ductile iron pipe, thereby reducing the use of electricity during the pumping operation. Also thereby reduces wear and tear on the pumping equipment
- The average cost of a typical replacement 8" water main project including appurtenances is \$219 per foot.
 - The anticipated minimum age of the new replacement water main is 50 years.
 - The estimated quantity of water wasted in flushing the main over the 50 years is 1/3 of an acre foot per foot of unlined pipe.
 - There will be a reduction in the overall occurrence of system pipe failures and leaks with an accompanying loss of water as the cast iron pipe is replaced.
 - The average present day customer cost of the blended groundwater and imported water supply in Region II is \$750 per acre foot. The cost for 1/3 acre foot is \$250. Therefore for each foot of existing cast iron water pipe replaced there will be a \$250 benefit versus a \$219 cost, a positive benefit of \$31 per foot of replaced water main over installation cost.

The above indicated hard cash savings over the 50-year period does not have any assignment of monetary values to the many customer and environmental benefits listed herein.

Should one assign monetary values to such other benefits listed herein, the positive benefit is anticipated to increase from the \$31 per foot of new replacement water main to over \$100 per foot.

E. Outreach, Community Involvement and Acceptance

For each project whether done under the Proposition 13 Urban Water Conservation Grant program (A) or the DWR Water Use Efficiency Project (B), SCWC, the local water purveyor will be working with the administration of the local jurisdiction (City or County) to notify the public, residents and businesses of the project and its benefits by advertisement in the local media, press releases and through lines of communication commonly used by the local jurisdiction.

The benefits, particularly the reduction in the quantity of water used (wasted) to flush the unlined cast iron water mains, the improvement in water quality and the environmental improvements would be identified in all such communications.

Enclosure:

Exhibit "A"